Report of
the Minister's Advisory Commitee on

Rural Medical Practice

Saskatchewan

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November 29, 1985

The Honourable Graham Taylor
Minister of Health
Room 38
Legislative Building
Regina, Saskatchewan

Dear Mr. Taylor:

On behalf of the Advisory Committee on Rural Medical Practice, I am pleased to submit to you the Committee's Report on its findings and recommendations.

The Committee members wish to express their appreciation for the opportunity to conduct this study of one of the key elements in our province's health care system. We submit this report in the belief that the measures proposed will contribute to the continuation and revitalization of medical care services in rural communities throughout the province.

Sincerely,

Donald J. Philippon

Donald J. Philippon, Ph.D.

ACKNOWLEDGEMENTS

The Committee wishes to express its sincere appreciation to the many individuals and organizations who submitted briefs and made presentations at the regional meetings.

The Committee also wishes to express its gratitude to those who assisted in preparing this report, and in particular to the four individuals who served successively as secretary to the Committee: Daniel Hickey, Rick Wagantall, James Kozan, and Michael Littlewood.

COMMITTEE MEMBERS

Donald J. Philippon, Assistant Deputy Minister of Health - chairman from March 1985 (also served as a Committee member representing Saskatchewan Health from June 1984 - February 1985)

Rick Roger, Associate Deputy Minister of Health - chairman (June 1984 - February 1985)

Sharon L. Downs - Saskatchewan Association of Health Services Executives

Dr. Paul H. Good - Saskatchewan Medical Care Insurance Commission

Dr. Ted Jahnke - Saskatchewan Medical Association

Jane Knox - Saskatchewan Registered Nurses' Association

David Schappert - Saskatchewan Health-Care Association

Dr. Frank Scott - Saskatchewan Medical Association

Dr. G.R. Spooner - College of Physicians and Surgeons of Saskatchewan

Dr. Michael Spooner - College of Medicine, University of Saskatchewan

Ted Wright - Saskatchewan Health

Dr. A.W. Thomson - College of Physicians and Surgeons of Saskatchewan

EXECUTIVE SUMMARY OF REPORT AND PROPOSALS

The Minister's Advisory Committee on Rural Medical Practice was established in June 1984. Within the framework of the existing number of hospitals in the province, the Committee was asked to identify major issues and factors which create problems for the recruitment and retention of physicians in rural Saskatchewan and to recommend general strategies on how to make rural medical practice more attractive to physicians.

Over the following year, the Committee collected extensive background information, received written briefs, and conducted three regional public meetings. The Committee analyzed the relevant data and the oral and written presentations and on the basis of its analyses prepared this report.

The report is organized as follows:

- Chapters 1 and 2 outline background, terms of reference and method of inquiry.
- Chapter 3 provides statistics and other background information relating to medical and hospital services in rural areas;
- Chapter 4 outlines the major issues as presented to the Committee at public hearings and in written briefs;

- Chapter 5 sets out the Committee's strategy for a new direction in the structure of rural medical services; and
- Chapter 6 proposes several measures which would serve to supplement and reinforce the proposed new model.

In analyzing the background information and the issues involved, the Committee concluded that effective solutions could not be achieved by a series of specific recommendations designed to address specific issues. The Committee believes that these various issues are a reflection of a fundamental problem in the structure of rural medical and hospital services and that the only effective response is a broad strategy designed to overcome this problem.

Accordingly, the report does not contain a numbered set of recommendations but rather describes a proposed strategy and a number of measures which can be taken in conjunction with it.

The essence of the Committee's proposal is the realignment of rural medical and hospital services on the basis of group affiliations. The key elements are as follows:

- A number of communities, hospitals, and physicians would voluntarily form a group that would collectively serve the medical and hospital care needs of residents in the area.
- One hospital in the group would be designated as the centre for most acute care services. The other hospitals would retain some acute care functions and would also provide a combination of emergency services, outpatient services and long-term care.
- Physicians participating in the group would have privileges at all the hospitals involved.

The Committee believes this strategy would have several major benefits:

- It would eliminate the requirement that a community have a resident physician in order for its hospital to remain open and provide a full range of services. Temporary closures of small hospitals would therefore be substantially reduced, and continuous access to hospital services for rural residents would be improved.
- Small rural hospitals would have a role that ensured their continued viability and effectiveness as central components of rural health care.

- For rural physicians (particularly those in solo practice) problems such as professional isolation, limited scope of practice, availability of locums, and continual "on-call" responsibilities would be substantially reduced. In this way, rural practice would become more attractive.

The Committee recognizes that the proposed model represents a major shift from current policies, practices, and community expectations. It therefore emphasizes that application of the model must be voluntary and flexible so as to ensure local support and effective implementation.

The Committee also recognizes that the model will not be of equal benefit to all communities in all cases. It therefore recommmends that support measures be examined in five areas: recruitment, financial incentives, locums, communications technology, and medical education. While these support measures can be used to reinforce the effectiveness of the model itself, the Committee is putting them forward as useful steps which can also be undertaken independently of the model.

The specific recommendations are as follows:

- that the College of Physicians and Surgeons of Saskatchewan bring together the variety of recruitment experiences of rural communities and develop an information package to distribute to communities on how to recruit a physician;
- that the Saskatchewan Health-Care Association explore the possibility of staging a physician recruitment day to bring together rural communities and physicians;
- that the Medical Practice Establishment Grant Program be terminated because it is an inappropriate and ineffective mechanism for physician recruitment;
- that Saskatchewan Health explore other incentives as alternatives (e.g. loans from MCIC repayable through deductions from payments, bursaries to medical students repayable through service in rural areas, supplements to the payment schedule);
- that the College of Physicians and Surgeons of Saskatchewan publicize its locum recruitment service more extensively;
- that a joint committee be established to plan and coordinate the introduction of communications technologies;

- that efforts be made to upgrade the quality of teleconferencing services;
- that a period of exposure to rural medical practice continue to be included in the training program for both undergraduate medical students and family medicine residents;
- that specific funds be allocated to regional hospitals for continuing medical and nursing education so that they can contract for programs to meet the needs in their own area; and
- that ways be explored of making continuing medical education and continuing nursing education more readily available.

In putting forward its proposals, the Committee acknowledges that they do not represent a perfect or universal solution. However, the Committee believes strongly that unless all parties involved give serious consideration to these new directions, the issues involved in rural medical practice today will continue to pose serious problems for the provision of effective services to residents of rural Saskatchewan.

GLOSSARY OF TERMS USED IN REPORT

Affiliated Medical Practice - a group of physicians holding privileges in hospitals that are part of a group arrangement.

Apportioned Population - the population served by a hospital adjusted for age, sex and utilization of hospital services and based on the relative number of separations from each hospital.

Associate Practice - a medical practice where the practitioner maintains patients' medical records with one or more other physicians.

Average Daily Census - the average number of inpatients during any given period of time. Calculated as patient days (other than newborn) in a period divided by calendar days for the same period.

Average Length of Stay - the average number of days spent by inpatients in the hospital. Calculated as patient days divided by separations.

Base Hospitals - the six major Regina and Saskatoon Hospitals, including Regina General, Pasqua, Plains, Saskatoon City, St. Paul's and University Hospital.

Community Hospital - A general hospital that serves the population of the local area. It provides a smaller range of services than a regional hospital.

Inpatient - a person who is admitted to a hospital for the purpose of receiving diagnostic or treatment services in the hospital and to whom a bed or bassinet is allocated for overnight stay.

Medical Cases - hospital separations with no surgical procedures recorded on the admission-separation form.

Outpatient - a person who is admitted to a hospital for the purpose of receiving diagnostic or treatment services in the hospital but to whom a bed or bassinet is not allocated for overnight stay.

Patient Day - a period of service to an inpatient between the census-taking hours on two successive days.

Regional Hospital - any hospital with greater than 100 beds that is not a base hospital.

Rural Community - a community with a population of less than 10,000.

Separation - the discharge or death of an inpatient.

Size of Practice - the number of different persons on whose behalf the Medical Care Insurance Commission paid a claim during the year from the practitioner being considered.

Solo Practice - medical practice by a single practitioner who is not part of an associate practice.

Surgical Case - a hospital separation having at least one 19surgical procedure recorded on the admission-separation form.

Urban Community - a community with a population of 10,000 or more.

In 1974 and 1979 - Regina, Saskatoon, Moose Jaw, Prince Albert, Swift Current, Yorkton, North Battleford.
1984 - as above, plus Weyburn and Estevan.

CHAPTER 1: THE SCOPE AND PURPOSE OF THE COMMITTEE

1.1 Background

The specific idea of establishing a special committee to examine rural medical practice was raised at a meeting between the Minister of Health and representatives of the medical profession in November 1983. However, a variety of concerns about rural medical practice were also being expressed by local hospitals and communities around the province.

In response to these expressions of concern and of the need for a major study, the Minister of Health announced the formation of the Advisory Committee on Rural Medical Practice in June 1984.

1.2 Terms of Reference

Within the framework of the existing number of hospitals in the province, the Committee is to

- identify major issues and factors which create problems for the recruitment and retention of physicians in rural Saskatchewan;
- recommend general strategies on how to make rural medical practice more attractive to physicians;
- identify impediments and suggest strategies concerning the recruitment and retention of physicians for rural Saskatchewan; and

- recommend strategies, policy and legislative changes concerning the role of small rural hospitals which would supplement other measures in making rural medical practice more attractive to physicians.

1.3 Committee Membership

The Minister of Health invited a number of organizations to be represented on the Committee and asked each organization to name a specific number of members, as follows:

Saskatchewan Medical Association - 2
College of Physicians and Surgeons of Saskatchewan -2
Saskatchewan Registered Nurses' Association - 1
Saskatchewan Health-Care Association - 1
College of Medicine - 1
Saskatchewan Health - 4
    Saskatchewan Hospital Services Plan - 1
    Medical Care Insurance Commission - 1
    Policy Research and Management Services Branch - 1
    Associate/Assistant Deputy Minister - 1 (Chairman)
Saskatchewan Association of Health Services Executives - 1

Secretariat services and back-up secretary and research services were provided by several persons throughout the Department of Health.

CHAPTER 2: METHOD OF OPERATION

The Committee held its first meeting on September 11, 1984, at which time the scope and purpose of the Committee were further discussed and refined. One particular point noted was that the Committee was expected to deal only with rural medical practice in areas outside the Northern Saskatchewan Administration District.

The plan of action agreed to was first to examine a wide range of reports and studies on the topic of rural medical practice prior to identifying further investigative work to be undertaken.

In October, after a review of many of the previous reports, the Committee decided to place advertisements in provincial newspapers requesting written briefs. The deadline for submissions was November 30, 1984. A total of 58 briefs was received.

Given the widespread interest indicated by the briefs and by the number of contacts with the Committee, it was decided to hold regional meetings to provide additional opportunity for communities and individuals to express their concerns to the Committee. Three regional meetings were held in February 1985, in Montmartre, Arborfield and Wilkie. The selection of meeting locations was determined by the origin of briefs submitted to the Committee. An

attempt was made to have the meetings in a location fairly accessible to those communities which had expressed an interest.

To obtain further input, the Saskatchewan Medical Association conducted a written survey on behalf of the Committee among all rural physicians. A total of 172 responses was received from the physicians surveyed (a response rate of roughly 75 percent).

CHAPTER 3: THE CONTEXT

3.1 Demographic Changes in Saskatchewan

Two demographic trends in Saskatchewan are very significant when considering the accessibility of health services in rural areas. These are the geographic shift of the population from rural to urban settings and the aging of the population.

Saskatchewan is still largely a rural province, with about 45 percent of the population residing in urban centres and 55 percent in rural centres. However, the rural population as a proportion of total population is declining. In 1974, only 41 percent of residents lived in urban areas with 59 percent living in rural areas. Table 1 shows the shift in population from rural to urban between 1974 and 1984.

Table 1: Saskatchewan Population, Rural and Urban Areas, Selected Years

	1974	1979		1984*		
	Population	Population	% Change Since 1974	Population	% Change Since 1979	% Change Since 1974
Urban	377,735	415,187	9.9	457,532	10.2	21.1
Rural	544,752	561,547	3.1	571,433	1.8	4.9
Total	922,487	976,734	5.9	1,028,965	5.3	11.5

* 1984 Figures adjusted to exclude Estevan and Weyburn from the urban columns as these centres were previously rural.

SOURCE: Saskatchewan Hospital Services Plan Covered Population.

In both rural and urban areas, Saskatchewan is experiencing a decline in the number and proportion of younger residents (under 25 years of age) and an increase in the middle (25-44 years) and oldest age groups (65+ years).

From 1974-1984, all three age groups experienced increases in urban settings. In rural areas, increases were experienced in just two age groups, those 25-44 and those 65+. Clearly, the elderly represent an increasing proportion of both rural and urban populations but comprise a higher proportion of the population in rural areas.

Table 2 shows the population distribution by age for 1974, 1979 and 1984.

TABLE 2

Covered Population, Rural and Urban Areas,
Selected Age Groups and Years

1974

	0-14 Years		15-24 Years		25-44 Years		45-64 Years		65+ Years		Total	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Urban	104,194	27.6	74,489	19.7	92,014	24.3	69,788	18.5	37,260	9.9	377,735	100
Rural	157,728	28.9	101,293	18.6	105,536	19.4	117,141	21.5	63,054	11.6	544,752	100
Total	261,922	28.4	175,782	19.0	197,550	21.4	186,919	20.3	100,314	10.9	922,487	100

1979

	0-14 Years		15-24 Years		25-44 Years		45-64 Years		65+ Years		Total	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Urban	97,385	23.5	88,207	21.2	111,950	27.0	74,931	18.0	42,714	10.3	415,187	100
Rural	148,188	26.4	109,411	19.5	123,353	22.0	112,024	19.9	68,571	12.2	561,547	100
Total	245,573	25.2	197,618	20.2	235,303	24.1	186,955	19.1	111,285	11.4	976,734	100

1984*

	0-14 Years		15-24 Years		25-44 Years		45-64 Years		65+ Years		Total	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Urban	101,100	22.1	87,575	19.1	141,817	31.0	78,186	17.1	48,854	10.7	457,532	100
Rural	147,701	25.8	99,699	17.4	143,242	25.1	105,149	18.4	75,642	13.2	571,433	100
Total	148,801	24.2	187,274	18.2	285,059	27.7	183,335	17.8	124,496	12.1	1,028,965	100

* 1984 Figures adjusted to exclude Estevan and Weyburn from urban column as these centres were previously rural.

3.2 Utilization of Hospital Services

Hospital utilization statistics over the past ten years show evidence of a shift from the smaller to the larger hospitals. The indicators used to summarize trends include apportioned population, separations, patient days, average length of stay, average daily census, and age and case type breakdowns.

Table 3 shows that apportioned population has increased overall but has decreased for hospitals with fewer than 50 beds. The 50+ bed size groups have picked up the difference, plus additional apportioned population resulting from a growth in the covered population. This shift indicates that the larger hospitals are serving an increased proportion of the population.

Table 3. Apportioned population by hospital group, 1973 to 1983-84

Hospital Group	1973		1978-79		1983-84	
	Number	Percent	Number	Percent	Number	Percent
1-25 beds	150,955	16.9	142,063	15.1	132,050	13.4
- 1-14 beds	49,038	5.5	46,970	5.0	40,291	4.1
- 15-25 beds	101,917	11.4	95,093	10.1	91,759	9.3
26-49 beds	113,305	12.7	111,941	11.9	98,038	9.9
50-99 beds	89,915	10.0	91,674	9.7	96,017	9.7
100+ beds	540,769	60.4	597,463	63.3	660,085	66.9
TOTAL	894,944	100.0	943,141	100.0	986,190	100.0

Source: Saskatchewan Hospital Services Plan Utilization Reports

Total separations (for all levels of care in the province) remained relatively constant during the study period, but a shift occurred in the way hospitals are utilized. Table 4 shows that a higher proportion of the total separations are now from the 100+ bed hospitals (61 percent in 1983-84 compared to 52 percent in 1973). Hospitals of under 50 beds, in contrast, experienced a 23 percent decrease in the actual number of separations, and the percentage of total separations provided by these hospitals dropped from 36 to 28.

Table 4. Separations+ and Percentage of Total Separations, by Hospital Group, 1973 to 1983-84.

Hospital Group	1973		1978-79		1983-84	
	Number	Percent	Number	Percent	Number	Percent
1-25 beds	42,573	20.9	36,976	18.6	33,797	16.3
- 1-14 beds	14,508	7.1	12,012	6.0	10,070	4.9
- 15-25 beds	28,065	13.8	24,964	12.6	23,727	11.5
26-49 beds	31,495	15.4	28,627	14.4	23,482	11.4
50-99 beds	23,576	11.5	21,548	10.9	22,134	10.7
100+ beds	106,485	52.2	111,326	56.1	126,253	61.4
TOTAL	204,129	100.0	198,477	100.0	205,666	100.0

+ Figures include separations for both acute care (Level 6) and non-acute care and include all inpatients of hospitals except newborn.

Source: SHSP Utilization Reports

Table 5 below provides statistics on patient days and average length of stay. The overall average length of stay has remained constant, but again a shift has occurred amongst the hospital groups, the average stay having increased for hospitals of under 50 beds but decreased for hospitals of 100+ beds. Total patient days, which have also remained relatively stable overall, have increased in the larger hospitals and decreased in the smaller ones.

Table 5. Total Patient Days and Average Length of Stay, by Hospital Group, 1973 to 1983-84

Hospital Group	1973		1978-79		1983-84	
	T.P.D.	A.L.S	T.P.D.	A.L.S.	T.P.D.	A.L.S.
1-25 beds	284,551	6.7	253,819	6.9	257,482	7.6
- 1-14 beds	96,328	6.6	82,465	6.9	88,108	8.7
- 15-25 beds	188,223	6.7	171,354	6.9	169,374	7.1
26-49 beds	224,321	7.1	190,534	6.6	198,949	8.5
50-99 beds	179,202	7.6	166,455	7.7	161,912	7.3
100+ beds	1,110,793	10.4	1,077,302	9.7	1,139,837	9.0
TOTAL	1,798,867	8.8	1,688,110	8.5	1,758,183	8.5

Source: SHSP Statistical Report

A decline in the number of patient days provided by hospitals of under 50 beds and by those of 50-99 beds has resulted in a decline in the average daily census for these hospitals. Hospitals of 100+ beds, on the other hand, have had an increase in their average daily census. This shift again illustrates that care previously given by the rural hospitals is now provided by the larger ones (see Table 6 for details).

Table 6. Average Daily Census by Hospital Group, 1973 to 1983-84

Hospital Group	1973 Total ADC	1973 Mean ADC	1978-79 Total ADC	1978-79 Mean ADC	1983-84 Total ADC	1983-84 Mean ADC
1-25 beds	779.6	9.6	695.4	8.6	705.4	8.7
- 1-14 beds	263.7	6.1	226.0	5.3	241.4	5.6
- 15-25 beds	515.7	13.6	469.5	12.4	464.0	12.2
26-49 beds	614.6	23.7	522.0	20.1	545.1	21.0
50-99 beds	491.0	44.6	456.0	41.6	443.6	40.3
100+ beds	3,043.3	202.9	2,951.5	196.8	3,122.9	208.2

Source: SHSP Statistical Report

The age composition of hospital patients in Saskatchewan is also changing. Residents aged 65 and over represent an increased proportion of separations and patient days from all hospital groups and a substantial proportion of total separations and days

from hospitals of under 100 beds. Table 7 shows that from 1973 to 1983-84, separations declined by 13.5 percent for residents under 25 years of age, increased by 9.9 percent for residents between 25 and 44 years (this may be due in part to an increase in newborns), declined by 12.4 percent for residents between 45 and 64 years, and increased substantially, by 27.5 percent, for residents 65 years and over.

The number of patient days and average stay for patients aged 65+ also increased; all other age groups experienced a decline in patient days and average length of stay. The impact of the 65+ group is particularly apparent on hospitals of under 15 beds, where the number of patient days for this group increased by 44.7 percent and the average stay by 5.1 days (see Tables 8 and 9). This trend could be expected to continue, as the 65+ age group is one of the most rapidly growing segments of the population.

Table 7. Total Separations* by Selected Age Groups, Adults and Children, and Hospital Groups, 1973 to 1983-84

Hospital Group	1973					1978-79					1983-84				
	0-24	25-44	45-64	65+	Total	0-24	25-44	45-64	65+	Total	0-24	25-44	45-64	65+	Total
1 to 25 beds	17,422	6,043	7,791	11,317	42,573	14,202	5,139	6,173	11,456	36,976	11,202	4,809	5,156	12,630	33,797
- 1 to 14 beds	5,706	1,847	2,727	4,228	14,508	4,386	1,500	2,075	4,051	12,012	3,011	1,351	1,617	4,091	10,070
- 15 to 25 beds	11,716	4,196	5,064	7,089	28,065	9,816	3,639	4,104	7,405	24,964	8,191	3,458	3,539	8,539	23,727
26 to 49 beds	12,792	5,445	5,669	7,589	31,495	11,466	5,007	4,576	7,578	28,627	7,604	4,095	3,617	8,076	23,482
50 to 99 beds	8,922	4,391	4,376	5,887	23,576	8,273	3,845	3,570	5,860	21,548	7,570	4,395	3,361	6,808	22,134
100+ beds	37,595	24,244	22,472	22,174	106,485	38,794	25,170	25,233	22,129	111,326	39,893	30,817	23,168	32,375	126,253
Total	76,731	40,123	40,308	46,967	204,129	72,735	39,161	36,454	50,127	198,477	66,359	44,116	35,302	59,889	205,666

* Figures include separations for both acute care and non-acute care.

Source: SHSP Statistical Report

Table 8. Patient Days by Selected Age Group, 1973 to 1983-84

Hospital Group	1973					1978-79					1983-84				
	0-24	25-44	45-64	65+	Total	0-24	25-44	45-64	65+	Total	0-24	25-44	45-64	65+	Total
1 to 25 beds	83,939	27,301	52,425	120,796	284,461	65,437	20,034	39,498	128,850	253,819	44,733	20,817	29,755	162,177	257,482
- 1 to 14 beds	26,245	8,224	18,378	43,391	96,238	18,177	5,824	12,526	45,938	82,465	11,291	4,510	9,527	62,780	88,108
- 15 to 25 beds	57,694	19,077	34,047	77,405	188,223	47,260	14,210	26,972	82,912	171,354	33,442	16,307	20,228	99,397	169,374
26 to 49 beds	69,234	26,350	41,475	87,262	224,321	55,381	22,975	31,319	80,859	190,534	44,599	16,832	24,518	113,000	198,949
50 to 99 beds	49,592	21,555	30,880	77,175	179,202	48,645	17,278	25,769	74,763	166,455	30,998	17,925	22,065	90,924	161,912
100+ beds	235,715	184,277	279,373	411,428	1,110,793	217,971	174,511	251,052	438,768	1,077,302	200,144	188,377	226,903	524,413	1,139,837
Total	438,480	259,483	404,153	696,661	1,798,777	387,434	234,798	347,638	718,240	1,688,110	320,474	243,951	303,241	890,514	1,758,180

Source: SHSP Statistical Report

TABLE 9. Average Length of Stay by Selected Age Groups, 1973-84

Hospital Group	1973 (Average Stay)				1978-79 (Average Stay)				1983-84 (Average Stay)			
	0-24	25-44	45-64	65+	0-24	25-44	45-64	65+	0-24	25-44	45-64	65+
1 to 25 beds	4.8	4.5	6.7	10.7	4.6	3.9	6.4	11.2	3.9	4.3	5.8	12.8
- 1 to 14 beds	4.6	4.5	6.7	10.3	4.1	3.9	6.0	11.3	3.7	3.3	5.9	15.4
- 15 to 25 beds	4.9	4.5	6.7	10.9	4.8	3.9	6.6	11.2	4.1	4.7	5.7	11.6
26 to 49 beds	5.4	4.8	7.3	11.5	4.8	4.6	6.8	10.7	5.8	4.1	6.8	14.0
50 to 99 beds	5.6	4.9	7.1	13.1	5.9	4.5	7.2	12.8	4.1	4.1	6.6	13.4
100+ beds	6.3	7.6	12.4	18.6	5.6	6.9	11.3	17.2	5.0	6.1	9.8	16.2
Total	5.7	6.5	10.0	14.8	5.3	6.0	9.5	14.3	4.8	5.5	8.6	14.9

Source: SHSP Statistical Report

The composition of cases handled within the various hospital groups indicates that the function of the smaller hospitals has also changed. Table 10 shows that a substantial decline has occurred in the number of surgical cases performed in hospitals of under 50 beds, particularly among hospitals of 25 beds and under. Hospitals of 100+ beds have had a 12.0 percent increase in medical cases and a 25.1 percent increase in surgical cases.

In summary, statistics on hospital utilization indicate that the type of care provided by rural hospitals seems to be shifting towards longer-term, non-surgical care for an aging population.

TABLE 10. Total Separations, by Medical-Surgical Cases by Hospital Groups, 1973 to 1983-84

Hospital Group	1973			1978-79			1983-84		
	Medical	Surgical	Total	Medical	Surgical	Total	Medical	Surgical	Total
1 to 25 beds	37,445	5,128	42,573	34,192	2,784	36,976	30,754	3,043	33,797
- 1 to 14 beds	13,191	1,317	14,508	11,384	628	12,012	9,501	569	10,070
- 15 to 25 beds	24,254	3,811	28,065	22,808	2,156	24,964	21,253	2,474	23,727
26 to 49 beds	25,894	5,601	31,495	24,689	3,938	28,627	19,636	3,846	23,482
50 to 99 beds	17,375	6,201	23,576	16,266	5,282	21,548	16,118	6,016	22,134
100+ beds	52,841	53,644	106,485	53,434	57,892	111,326	59,160	67,093	126,253
Total	133,555	70,574	204,129	128,581	69,896	198,477	125,668	79,998	205,666

Source: SHSP Statistical Report

3.3 Rural Medical Practice

Statistics in MCIC records show that the type and composition of the small rural practice (one to three practitioners) has undergone a gradual change over recent years.

During the period 1979-80 to 1983-84, the number of one-practitioner communities increased from 38 to 42, while the total number of solo practice physicians rose from 67 to 75. During the same period, the number of communities served by two or three physicians in an associate practice decreased from 27 to 23 and the number of physicians in such practices decreased from 57 to 45. These data undoubtedly reflect the fact that as physicians leave rural communities where there were two or three physicians, more communities are being left with only one practitioner.

Table 11 shows that there was an upward trend in average practice size (or patient load) in all types of rural practice over the time period in question. However, the table also shows that although the total patient load increased somewhat, the age composition of that total did not alter substantially.

TABLE 11. Total Patients and Average Size of Practice by Age Group of Patients, 1979-80 and 1983-84

	Size of Practice by Age Group of Patients									
	1979-80					1983-84				
	0-14	15-44	45-64	65+	Total	0-14	15-44	45-64	65+	Total
TOTAL PATIENTS, ALL PRACTITIONERS*	55,412	84,893	40,912	34,127	215,344	59,379	88,506	40,396	36,820	225,101
One Practitioner Community Solo.....	14,768	22,199	10,804	9,331	57,102	18,471	25,733	12,173	11,534	67,911
Two-Three Practitioner Community										
Solo.....	10,916	18,116	9,178	7,872	46,082	15,505	25,137	11,164	9,639	61,445
Association.....	29,728	44,578	20,930	16,924	112,160	25,403	37,636	17,059	15,647	95,745
AVERAGE SIZE OF PRACTICE PER PRACTITIONER:										
One Practitioner Community Solo.....	388.6	584.2	284.3	245.6	1,502.7	439.8	612.7	289.8	274.6	1,616.9
Two-Three Practitioner Community										
Solo.....	376.4	624.7	316.5	271.4	1,589.0	469.9	761.7	338.3	292.1	1,862.0
Association.....	521.5	782.1	367.2	296.9	1,967.7	564.5	836.4	379.1	347.7	2,127.7

* The sum of the practitioners' size of practice counts.

Source: MCIC Records

Not only did size of practice grow during this period, but the number of services provided also increased, by 37 services per 100 patients seen. The increases in patient load and in services delivered have had an upward impact on average MCIC payments to rural practitioners. The increase from 1979-80 to 1983-84 is shown in Table 12 below, with figures for urban general practitioners included for comparison purposes.

Table 12: Average MCIC Payments to Rural and Urban General Practitioners, 1979-80 and 1983-84

	Year		
Type of Practice	1979-80	1983-84	Percent Change
Rural Community Subgroup	$76,631	$137,642	79.6
- One-physician community	74,735	129,337	73.1
- Two or three physician community			
- Solo	77,821	149,705	92.4
- Associate	77,290	136,547	76.7
All Rural	75,516	127,641	69.0
- Solo	74,441	129,192	73.6
- Associate	76,010	126,517	66.4
Urban	70,596	111,921	58.5
- Solo	74,859	119,234	59.3
- Associate	69,036	108,803	57.6

Source: MCIC Records

Attempting to analyse shifts in services provided is difficult, since the pattern of service delivery in rural areas varies significantly from practice to practice. Caution must be exercised in drawing conclusions simply from aggregate data, but a few points emerge that are worthy of note:

- The services provided most frequently were as follows: initial/partial assessments; hospital care days; laboratory tests; complete assessments; counselling; minor therapeutic services.
- The services provided infrequently were as follows: major therapeutic procedures; consultations; obstetrics; anaesthesia; major surgery.
- The services experiencing the greatest increase during the review period were initial/partial assessments and minor therapeutic services.
- The areas in which a large number of physicians provided no services were consultations, anaesthesia, and major therapeutic procedures. An increase occurred in the number of physicians not providing obstetrical services.

- During both 1979-80 and 1983-84, the rate of physician services per 100 patients was higher for solo practitioners than for physicians in associate practice. Different rates for particular services were also apparent (e.g. initial/partial assessments, hospital care days, laboratory tests).

(The above points are based on an analysis of MCIC statistical records. For reference purposes, the detailed statistics are included as an Appendix to this report.)

3.4 Physician Manpower

Statistics compiled by Health and Welfare Canada show that across Canada the supply of physicians has been steadily increasing. From 1973 to 1983 the number of physicians in Canada increased by 11,500. Because the rate of increase in physician supply has been greater than the rate of increase in population, there are now fewer people per physician. The population per physician declined from 743 in 1973 to 604 in 1983. All provinces have more people per physician in rural areas than in urban areas.

Compared to other provinces, Saskatchewan generally has more people per physician. In 1983, when there were 604 people per physician in Canada as a whole, in Saskatchewan there were 733 people per physician. However, Saskatchewan has relatively more general practitioners than most other provinces, with one for every 1,161 people compared to one for every 1,183 people in Canada as a whole.

Urban and Rural Supply

Between 1974 and 1984, the number of general practitioners in Saskatchewan increased by 212, or 46 percent. However, as Table 13 below indicates, this increase has not been spread evenly across the province as physicians have been increasingly concentrated in urban areas. From 1974 to 1984 the number of general practitioners in Saskatchewan increased by 172 (73 percent) in urban areas but only by 40 (17 percent) in rural areas.

Table 13. General Practitioners by Community Size, 1974 to 1983-84

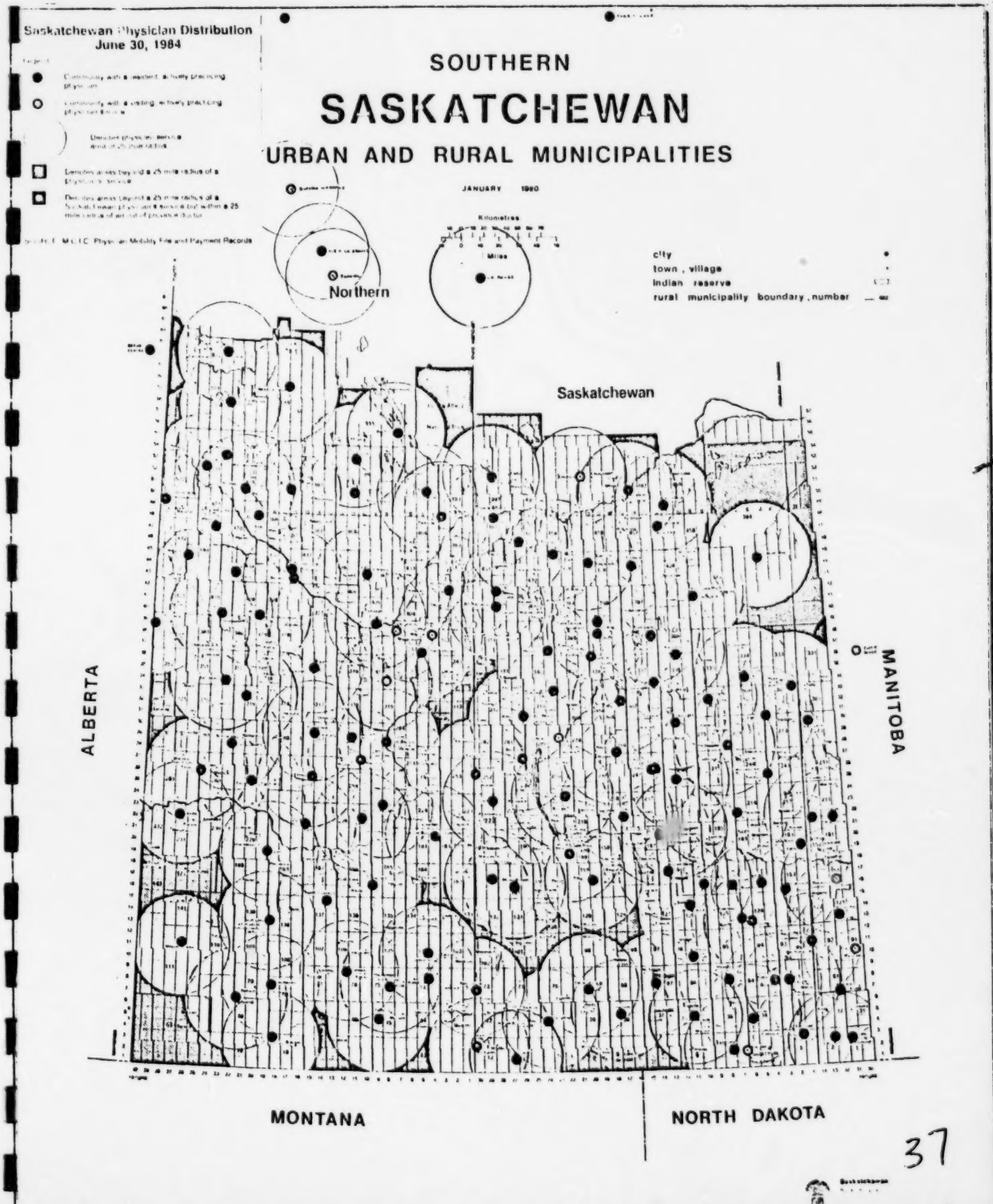
Year	Community Size: Under 10,000 Total G.P.	Under 10,000 Pop/GP Ratio	10,000 & Over Total G.P.	10,000 & Over Pop/GP Ratio	All Communities Total G.P.	All Communities Pop/GP Ratio
1974	225	2,287	235	1,557	460	1,914
1975	243	2,111	263	1,433	506	1,759
1976	247	2,111	264	1,461	511	1,775
1977	266	1,973	277	1,423	543	1,692
1978	262	2,020	296	1,349	558	1,664
1979	260	2,044	311	1,299	571	1,638
1980	261	2,038	318	1,288	579	1,626
1981-82	274	2,033	361	1,201	635	1,560
1982-83	272	2,053	388	1,140	660	1,516
1983-84	265	2,133	407	1,104	672	1,510

Source: MCIC statistical records.
(Note: MCIC figures differ from federal statistics because of different methods of calculation.)

Accessibility

A 1981 Task Force found that 97 percent of the population of Saskatchewan lives within 40 kilometres (25 miles) of a physician. Ninety-four percent of the population lives within 80 kilometres (50 miles) of a hospital with 50 or more beds. Ninety percent of the population lives within 160 kilometres (100 miles) of a hospital with 200 or more beds.

More recently, a 1984 analysis of Medical Care Insurance Commission data showed 99 percent of the population living within 40 kilometres (25 miles) of a physician. This finding is illustrated on the map on the following page.


Saskatchewan Physician Distribution
June 30, 1984
SOUTHERN
SASKATCHEWAN
URBAN AND RURAL MUNICIPALITIES
JANUARY 1980
Kilometres
Miles
Northern
city
town , village
indian reserve
rural municipality boundary , number
Saskatchewan
ALBERTA
MANITOBA
MONTANA
NORTH DAKOTA

Rural Attrition

According to a recent study, physicians leave rural areas in Saskatchewan at 2.5 times the urban rate. This means that in one year, for every physician who leaves an urban Saskatchewan location about 2.5 physicians leave a rural practice. The attrition rate is highest in communities with three physicians or fewer.

Characteristics of Rural Physician Supply

A high proportion of rural physicians are graduates of foreign medical schools. In 1979-80, 63 percent of all rural physicians were foreign graduates. By 1983-84 this percentage had dropped slightly to 60 percent.

Foreign medical graduates are concentrated in the very small communities. In 1983-84, 90 percent of physicians in one-doctor communities were foreign graduates, while in communities with three or fewer physicians, 65 percent were foreign graduates. Over the past five years, the composition of rural medical practice has remained fairly constant. Only in one-doctor communities has the proportion changed very much, with the number of Canadian graduates decreasing.

In September 1981, a revised Medical Profession Act came into force. The Act changed the qualifications for registration of physicians so that physicians from a number of Commonwealth countries who were formerly eligible for licensure can now obtain only a provisional licence. Such a licence allows a physician to practise in a specified location for three years, during which time the physician must fulfill the requirements for obtaining full licensure. (Note: The changed requirements apply only to physicians seeking registration after the changes took effect.)

The above-mentioned category of physicians who were formerly eligible for full licensure has made up a decreasing proportion of the total rural physician supply, declining from 42 percent in 1979-80 to 35 percent in 1983-84. Most of this decrease has occurred in one-doctor communities.

Saskatchewan Graduates

A 1983 survey conducted by the College of Medicine of the University of Saskatchewan found that 40 percent of its graduates were practising in Saskatchewan. This survey, which defined rural communities as those with a population under 20,000,

found that 7.6 percent of Saskatchewan graduates (79 physicians) were practising in a rural area. The survey found no Saskatchewan graduates in a solo practice in a rural area.

Of the Saskatchewan graduates practising in the province, 61 percent were in associate practice and 17 percent in solo practice. Approximately 60 percent were in family/general practice.

Incentive Programs

Most Canadian provinces have incentive programs to improve physician supply in rural areas. These programs include such items as modifications to the payment schedule, a guaranteed minimum income, and special lump sum payments.

Saskatchewan introduced a Medical Practice Establishment Grant Program in 1979. Saskatchewan Health will match community contributions up to a maximum grant of $15,000 for a Canadian-trained physician establishing a first-time practice in an approved location. Communities in which the largest participating municipality has a population of 5,000 or less are grant-eligible. To the end of 1984-85, nine grants had been awarded.

The Saskatchewan Health-Care Association administers a summer extern program funded by Saskatchewan Health which allows medical students to

spend the summer between their third and fourth years working in a rural hospital. The program is intended to give the students experience in a rural area and thereby encourage them to consider practising in a rural location. Details on utilization of the program are shown in Table 14 below. It has been suggested that more students would like to take advantage of the program but do not do so because the monthly stipend ($1,125 per month in 1985) is too low.

Table 14. Summer Extern Program

Year	Full Time Equivalents Approved	Full Time Equivalents Employed	Number of Students Employed
1980	25	22	30
1981	25	22	25
1982	25	20	25
1983	25	25	28
1984	25	22	26

Source: SHSP Records.

(Note: A full-time equivalent is one student employed for a total of four months.)

3.5 Medical Education

In 1926, the School of Medical Science was established at the University of Saskatchewan. It offered the first two years of medical training to students, who then completed their final two years at

a medical school outside the province. In 1953, the College of Medicine became a full degree-granting institution. The first class of 29 students graduated in 1957.

The College of Medicine is now fully accredited with an enrollment of 60 students per year. Clinical teaching is carried out in the University Hospital and St. Paul's and City Hospitals in Saskatoon and at the General Hospital, Pasqua Hospital, and Plains Health Centre in Regina.

The undergraduate training period is five years, the final year being a junior undergraduate rotating student internship (known as the JURSI). Graduates must take at least one year of post-graduate training in order to be eligible for a licence.

The Clinical Services Fund of Saskatchewan Health supports approximately 51 internship and 154 residency positions per year. There are 39 residency positions allocated to family medicine - 20 in Regina and 19 in Saskatoon. This is a two-year training program which students may enter directly upon completion of undergraduate medical training.

Students obtain exposure to rural medical practice at two points during their training:

- The fifth year of undergraduate medical studies, the JURSI, includes four weeks of family medicine experience, two of which are done in rural medical practice with a local physician appointed as preceptor. Students can choose their own location and often return to their own home town for this experience.
- During the first year of the family medicine residency program, all residents must spend one month in a rural area. Residents generally spend the month in Uranium City, La Ronge, Meadow Lake, Ile a la Crosse, or other outlying communities. Local physicians appointed as assistant clinical professors provide supervision to the residents.

Continuing medical education courses are offered across Saskatchewan by the Division of Continuing Medical Education of the College of Medicine. Funding for the Division comes from the College of Medicine, the Saskatchewan Medical Association, the College of Physicians and Surgeons of Saskatchewan, Saskatchewan Health and a number of voluntary organizations.

CHAPTER 4: FACTORS CONTRIBUTING TO PHYSICIAN RECRUITMENT AND RETENTION PROBLEMS

4.1 Introduction

The briefs received by the Committee and the presentations at regional meetings identified a number of problems and factors which affect the ability of a rural community to recruit and retain the services of a physician. The briefs and presentations were from a wide variety of individuals and organizations, including practising physicians, hospital administrators, hospital trustees, local government officials, Chambers of Commerce, registered nurses, health organizations, and the general public. In addition, the Committee's physician survey received 172 responses, which reiterated some of the problems identified in the meetings and briefs.

The problems and concerns which were identified to the Committee are described below under seven headings, although in reality some of these are quite similar or interrelated. It should be emphasized that the problems are stated exactly as they were presented to the Committee and also that their order in the text is not intended to reflect any assignment of priorities to them by the Committee. However, in some

cases the Committee's own perspective on the problems is somewhat different, and editorial comment is therefore included under several of the seven headings.

4.2 Workload

The prospect of a heavy workload in a rural practice is not in itself a deterrent to the recruitment of a physician, since through their training, physicians are accustomed to working long hours. The Committee's physician survey indicated that individuals planning to leave the community are no more likely to complain of a shortage of free time than those intending to stay.

The Committee was told that much of the difficulty with workload in a rural setting is related to stress on the physician from being on call 24 hours a day, 7 days a week, with difficulty finding substantial blocks of time for himself or his family. This situation affects the physician's family life, limits his ability to participate in continuing medical education, and contributes to professional isolation.

This problem is aggravated by the difficulty in obtaining appropriate temporary replacements. The Committee's survey indicated that 38 percent of

respondents were unable to obtain the desired type of replacement when leaving the community for a period of more than a few days.

Although graduates may be aware of these facts and hence be reluctant to move to a rural area, the problem is more likely to affect retention rather than recruitment.

4.3 Professional Satisfaction

The Committee was told that the range of privileges recommended by the College of Physicians and Surgeons is considered to be too narrow. The restrictive range of privileges is felt to have a detrimental effect on job satisfaction because the physician is not able to utilize many of the skills learned during his training. The practitioner may be reduced to practising "band-aid" medicine, without professional consultation; most difficult or interesting cases are referred out, with the physician losing the patient. This type of practice is not intellectually stimulating.

Also, rural areas tend to include a large proportion of individuals who require long-term care rather than acute care. Some physicians find the provision of long-term care to be less interesting.

The physician's training includes the use of a wide range of diagnostic equipment and support services, and a medical graduate may be unwilling to establish a practice where these are not available. Some practitioners may feel that this relative shortage of equipment hinders the quality of care they are able to offer. Saskatchewan Hospital Services Plan restrictions on the purchase of capital equipment were cited as contributing to this problem.

The individuals intending to leave rural practice expressed concern about hospital facilities to a greater extent than those individuals planning to stay. Conflict with hospital boards is also a source of dissatisfaction for some rural practices.

Finally, the Committee was told that professional isolation is a serious concern for rural practitioners. The rural physician tends to feel isolated from his fellow physicians because of infrequent personal contact.

Rural physicians have limited opportunity to increase their skills in new techniques or to use new skills. The distance between rural and urban centres, the concentration of professional development in Regina and Saskatoon, the difficulty in obtaining locum coverage and the associated financial costs,

render continuing medical education difficult to obtain and thereby contribute to professional isolation.

4.4 Locum coverage

There is a perception that locums are difficult to obtain at the physician's convenience. The lack of available physicians to do short-term locums on a regular basis makes it extemely difficult for a physician to get time off for educational leave, a vacation or a short break. It is also perceived that tne lack of locum coverage is aggravated by an inability to attract foreign physicians resulting from a restriction in The Medical Profession Act, 1981, which limits the time a physician can do a locum to four months in a year. Also, the cost of registration for foreign locums was mentioned as being excessive.

Committee's Comment

The 1981 amendments to The Medical Profession Act did not introduce more stringent provisions regarding locums. On the contrary, the Act extended the maximum period for a locum to four months from two months. The Committee believes that the recruitment of foreign locums is complicated by immigration policies which are designed to limit immigration of physicians because of concerns about the growing overall supply of physicians in Canada. Delays in processing immigration requests for foreign locums do make it difficult to recruit such individuals.

The Committee also notes two other points:

. recruitment of locums is easier for physicians in group practice than for those in solo practice;

. the system maintained by the College of Physicians and Surgeons to assist with locum recruitment is often not used by physicians, and physicians do not always advise the College of changes in their status with regard to locum services.

4.5 Community Expectations

The expectation of the community that a physician must be available to provide service at any time of the day or night adds to the pressure upon the rural physician. It is not that rural residents are more demanding, but rather that in an urban centre the patient can go to an emergency department without having to disturb his family physician.

Committee's Comment

The Committee believes that expectations of having a resident physician in most rural communities are unrealistic, and it makes two points in this regard:

. substantial improvements in the rural road network over the years have greatly improved ease of access to medical and hospital services for rural residents;

. a rural resident who is ten miles from the nearest physician may in fact find it quicker and easier to obtain medical services than a resident of Regina or Saskatoon who has to drive to his doctor's office or the nearest hospital.

4.6 Educational Preparation

This factor was mentioned as one of the most important deterrents to the recruitment of Canadian graduates for rural medical practice. The public generally feels that Canadian medical graduates are inadequately prepared for rural medical practice because their training takes place in large, well-equipped teaching hospitals where they can rely heavily on the use of technology and where they have ready access to consultation and support services.

New graduates from such an environment are usually reluctant to practise in a rural area where they will have complete responsibility for patients without the consultation and support services to which they have become accustomed. Also, it is believed that there appears to be a bias against rural practice in medical schools, which give the impression that quality medical care cannot be provided in a rural medical practice.

Committee's Comment

The Committee recognizes that under any circumstances most new graduates will be reluctant to establish a solo practice in a rural area.

However, the Committee believes that the College of Medicine, University of Saskatchewan, is not biased against rural practice. The College has in fact been helping to train physicians for this type of practice for many years. All final year undergraduates are

required to serve a period of training in rural practice. As well, the largest residency program in the College - family medicine - has been designed to help encourage rural practice and includes a mandatory rural practice component.

4.7 Lifestyle and Family Considerations

These factors influence both recruitment and retention. The Committee was advised that many medical graduates, after spending seven or eight years in a university city, prefer the city lifestyle with its large variety of social, cultural and educational opportunities.

The physician frequently marries someone who may prefer a city lifestyle and who may influence the physician to remain in the city even if the physician is considering a rural practice. The spouse may be dissatisfied with the workload or rural lifestyle once settled in a rural practice or may be a professional to whom the rural community does not offer opportunity for advancement or employment. The physician survey indicated that a rural spouse increases the probability the physician will stay in a rural community.

In the physician survey, the influence of personal commitments to family, the lack of cultural amenities, and the lack of educational and

recreational facilities for children were all significant to individuals planning to leave. (However, it was noted that the rural lifestyle may attract some physicians with families. The flexibility, independence of practice, and opportunity to be an important person in the community may be positive aspects of rural practice for some practitioners.)

Many foreign-trained physicians and their spouses have great difficulty adjusting to rural Saskatchewan. As several briefs stated, "it is a real culture shock." For this reason, foreign physicians may use a rural practice as a stepping-stone to become established in Canada rather than as a long-term type of practice.

4.8 Foreign Graduates

When rural communities are unable to attract a graduate of a Canadian medical school, they may seek a foreign graduate. Two problems are perceived to exist in the recruitment of a foreign graduate:

- there are substantial delays in processing immigration documents; and
- the frequency with which the qualifying examination (LMCC) and the screening (evaluating) examinations are available is seen to be restrictive.

Committee's Comment

Many rural communities appear to have abandoned all hope of recruiting a Canadian graduate and therefore make little attempt. However, routine recruitment of foreign physicians is not a solution because they are no more likely to remain in a rural community than are Canadian graduates.

The Committee recognizes that the LMCC is a factor in the recruitment of foreign physicians. However, the Committee notes that the LMCC is offered annually as a national licensing examination for Canadian graduates. It is therefore administered with a view to achieving this primary purpose rather than with a view to accommodating the needs of physicians wishing to immigrate to Canada.

The evaluating examination required of all physicians wishing to immigrate to Canada is offered twice a year, and the logistics of offering the examination around the world make it impractical to hold the examination more frequently.

CHAPTER 5: A NEW FRAMEWORK FOR RURAL MEDICAL PRACTICE

5.1 Introduction

In analyzing the information and concerns presented to the Committee, members considered the possibility of attempting to develop a set of specific recommendations focussing on the various problems individually. However, the Committee concluded that although the individual points are significant, a broader overall strategy is needed to address them effectively.

The proposals presented in this chapter represent a new strategy for addressing physician recruitment and retention problems for a large number of communities, particularly those most severely affected by their inability to maintain physician coverage. It is a strategy based on the Committee's conclusion that difficulties in attracting physicians to rural Saskatchewan are closely linked to the changing nature of rural health service. Reorganization of rural medical services will

- improve and maintain the quality of health care available to rural residents,
- help remedy current physician recruitment difficulties, and

- retain the small community hospital as a viable means of addressing the health care needs of rural communities.

5.2 The Small Hospital Problem

Regulations under The Hospital Standards Act require that "at least one member of the medical staff of every hospital reside in the community in which the hospital is located". In the model medical staff bylaws developed by SHSP, it is suggested that "resident in the community" be interpreted to mean living no more than 10 kilometres from the hospital.

Each year, a number of small community hospitals are required to suspend regular inpatient services because they have lost their resident physician. Such suspensions have the following implications for the community:

- reduction in local medical and hospital services,
- reduction in direct employment at the hospital, and
- potential loss of secondary employment and economic activity generated by the hospital's presence.

The problem is significant in Saskatchewan. There are 112 small community hospitals in this province, of which 87 have fewer than 25 beds. In 1983-84, there were 42 one-doctor communities.

The trends and factors which discourage physicians from locating and remaining in small communities (see Chapters 3 and 4) are expected to become steadily more significant under the current structure of rural medical service. Without corrective action, the frequency with which small hospitals experience difficulty in maintaining services is expected to increase.

In summary, rural medical practice in small communities, as it is presently constituted, is not generally appealing to physicians, especially new graduates. The present structure of rural medical services is not well aligned with current trends in medicine and is dependent on the presence of a physician in the community.

The Committee believes long-term assurance of reliable medical and hospital coverage requires a different approach to the provision of rural medical services. The Committee also believes the proposals must be sufficiently attractive to physicians, hospitals and communities that they will desire

changes and opt for them voluntarily. To meet these objectives, the Committee proposes that Saskatchewan Health encourage and facilitate a system of affiliated medical services initiated voluntarily at the local level.

5.3 Proposed Framework

The proposed framework seeks to establish a district organization of rural medical services. Success of the model will require the full cooperation of the Department of Health and of neighbouring physicians, hospitals and communities. The primary elements of the new model are listed below:

- Two or more neighbouring hospitals and their medical staffs collaborate to provide services to their combined populations.
- Services and equipment are rationalized and shared among the affiliated facilities.
- One hospital within the group serves as the hospital for most acute care services. (In the following discussion, the term "central hospital" is used simply as a means of identification.)

- The other hospital(s) in the group continue to provide inpatient services for a mix of extended care, respite care and selected acute care admissions. They also offer outpatient services provided by a resident or visiting physician and other needed community health services.
- Medical coverage for the area encompassed by a hospital group, including regular visiting services to hospitals, is arranged by the physicians having privileges in the hospitals.

Circumstances will vary greatly among hospital groups, and success of any arrangement will depend upon local initiative and acceptance. Therefore, two essential features of the proposed framework are that it be both voluntary and flexible.

The minimum combination recommended is two facilities and three physicians. One or more facilities with relatively low average daily census will affiliate with one larger hospital. Most acute care services will be concentrated in the central hospital, with physicians providing regular visiting services to the other hospitals.

For illustration purposes only, the Addendum to this chapter outlines what the Committee views as being a typical arrangement under the proposed framework. As indicated, however, actual arrangements may vary substantially from one area to another.

5.4 Benefits of Affiliation to Rural Hospitals: Enhanced and Shared Services

Under the proposed framework, the hospitals in a group will be able to benefit from enhancement of their services and from much greater sharing of services than is currently possible. Some examples are as follows:

- Through affiliation, rural hospitals may be able to attract or provide services which they would not be able to offer individually. They may, for example, cooperatively provide access to day care, detoxification, palliative care and other such services geared to community needs.
- Although the model might not directly improve access to outpatient services provided by visiting health professionals, coordination of such services could make their provision more efficient and more attractive to visiting specialists (e.g. diet counselling, mental health services, physiotherapy, occupational therapy).

. Staff education and orientation services may be shared. The programs could include a combination of post-basic, in-service or continuing education courses, and could focus on those subject areas which constitute the mandate of hospitals other than the central hospital in a group. (Since these other hospitals are to provide emergency nursing care, it is necessary that nursing personnel be provided with the requisite training and continuing education. Similarly, an increasing emphasis on provision of chronic care inpatient services will require ongoing programs in care for the elderly.)

. The group will be encouraged to rationalize and share equipment and services as much as possible and in a manner that will enhance the quality of services available to the population. For example, where certain services and equipment may not reasonably be provided by any one facility in the group, these same items may be affordable and justifiable for the group in total.

. The hospitals will be encouraged to share administrative and support services as appropriate (e.g. administration, maintenance, finance, personnel). Each group will be free to determine whether to maintain independent boards for each facility or to organize under one board.

5.5 Benefits of Affiliation to Rural Physicians and Communities

A system of affiliated medical practices tied to a network of rural hospitals will offer significant advantages not only to rural hospitals but also to rural physicians and communities:

- Improved access for rural physicians to coverage for their patients on short notice or at prescheduled intervals will permit more time off for leisure or educational reasons, with coverage being provided by other group members or by locums. Physicians who would be unwilling to provide locum service as the sole provider of medical coverage to a community may be much more interested in doing a locum as part of a group practice.
- The collegial atmosphere made possible by group practice will allow regular consultation among physicians and reduce feelings of professional isolation.
- The potential will exist to increase the volume of surgical cases handled in the central hospital in a group.
- Increased volumes and consolidation and sharing of facilities may lend support to arguments for enhanced facilities, equipment and services which would otherwise not be available to patients.

- The opportunity for physicians to be involved in treatment of a larger volume of acute care patients at the central hospital will allow them to practise a somewhat wider range of skills and may permit some development of special areas of interest (e.g. concentration on family physician services in paediatrics, geriatrics, or obstetrics).
- Physicians will have admitting privileges in all hospitals in a group and will be able to utilize the facilities in all hospitals. They may be granted different privileges specific to each facility, however, depending upon the resources available in each hospital.
- The above features will combine to make rural practice more attractive to Canadian-trained physicians.
- Small communities will be freed from the threat of losing local access to hospital and medical services and from the negative economic consequences of such a loss.
- Adjusting services provided in a hospital group to meet current needs more appropriately will ensure a new and continuing role for the small community hospital. These hospitals could become the focal point and coordinating agent for all local health services.

. Although the proposed model will not necessarily lead to additional beds, existing beds will be reclassified to better reflect the services required (and most often already being provided). Therefore, although this model will not increase the total number of beds in the province, a hospital group may be able to retain a greater percentage of hospital services for the local residents because of the improved services it will offer. This retention would be of benefit to communities, hospitals, and physicians alike.

5.6 Challenges and Issues

The Committee recognizes that implementation of the proposed model will be challenging, and it has identified the following points as items which will need to be addressed:

. The model requires a workable geographic arrangement among the collaborating hospitals. Distances to be travelled and year-round road conditions will be important factors. Some small hospitals will have difficulty joining a group for lack of close neighbours and other measures will be required to assist these facilities in providing reliable medical coverage.

. The Committee recognizes that local hospital boards may have a natural reluctance to surrender some of their autonomy and their acute care role and also that the public may be concerned about perceived losses arising from the new role of their hospital. These factors must be effectively countered with assurance that promised benefits will be realized.

. Communities, hospitals and physicians opting for the model will require assurance that their cooperative efforts will not result in additional costs or economic losses. (Financial implications of the model are discussed in the next section of this report.)

. Groups will develop most easily along lines of established trading patterns. If commerce is already being conducted regularly between communities, affiliation of health services will be more easily negotiated and accepted by all those involved.

. Established medical groups in communities with hospitals which could function well as central hospitals may be reluctant to extend medical service to smaller neighbouring communities. The opportunity to increase their acute care caseload

and to have access to appropriately enhanced facilities, services and equipment must be adequate to encourage them to opt for the model.

. It must be recognized that there may be cases in which personal conflicts and incompatibilities among neighbouring physicians, hospital boards and staff, and communities will hinder cooperative endeavours. However, since participation in a reorganization is voluntary, such conflicts could be substantially resolved before a group sought assistance in establishing operations.

. The nature of the acute care role to be provided by hospitals other than central hospitals must be clearly defined. Removal of physician residence requirements will free physicians to serve these hospitals from neighbouring communities. The acute care activities which can continue in the absence of a physician must be clearly defined, with parameters being determined by a professional body.

Given the low volume of acute care services provided in most very small hospitals, the impact should be minimal. Although it is probable that these other hospitals will no longer offer obstetrical services or surgery requiring general anaesthetic, volumes are already very low in each of

these services in small hospitals. It is anticipated that acute care parameters for these hospitals will be determined during the implementation process for the proposed model.

. Nursing and allied health personnel will be required to take on new responsibilities in the provision of 24-hour emergency service in the absence of a physician. An enhanced role for nurses will be beneficial in staffing these hospitals. Staff upgrading and continuing education will be essential.

. Staff training and continuing education, the funding of which is already viewed as inadequate by rural health care providers, will have to be enhanced to facilitate the model, particularly for those hospitals which function without a resident physician. Adequate programs will not be established easily or inexpensively, and Saskatchewan Health should establish its position on education funding at an early date.

. Increased visiting services from health professionals (e.g. diet counselling, physical therapy, mental health services) will not necessarily result from group affiliations and should therefore not be emphasized as a major

advantage of affiliation. However, coordination and sharing may make provision of such services more economically practical and more appealing to providers.

. The issue of enhancing access for rural physicians to continuing medical education should not be tied to the development of the model except to note that group practice will allow much better opportunity for physicians to attend programs of their choice. The questions of increased volume and funding of continuing medical education exist independent of the model and are discussed elsewhere in this report (see Chapter 6).

. The Department of Health will be required to adjust several regulations and funding policies in order to accommodate the model. For example, it is anticipated that some ambulance transfers within a group area and certain staff education programs will be funded for hospitals within a group. This funding will be justified since some hospitals will have to transfer patients to the central hospital by ambulance on an emergency basis for services which previously were available locally. The funding of staff upgrading will also be justified for those communities which have given up a resident physician in favour of visiting services from physicians based at the central hospital.

5.7 Financial Implications

Accurate detailed costing is difficult since costs may vary significantly depending on the circumstances of the collaborating facilities. There are, however, some general or potential costs which need to be considered.

5.7.1 Staffing and Operating Costs

The new role of non-central hospitals in a group may result in some savings in this area. However, these savings may be assumed to be offset by increased costs associated with the expanded role of the central hospital.

Economies of scale may yield savings as the number of hospitals associated with a single central hospital increases. Also, any conversion of some Level 6 beds to special-care might permit these hospitals to accommodate more patients within the same staff complement.

5.7.2 Staff Upgrading and Continuing Education

Costs associated with upgrading and maintaining skills of nursing and technical staff as necessary to ensure adequate provision of 24-hour emergency care in the absence of the physician will have to be covered. The nature of

training required and the number of staff involved must be determined. Presently, nursing staff providing 24-hour emergency service in Community Health and Social Centres do not receive additional training.

5.7.3 Ambulance and Transportation Costs

Ambulance costs associated with the transfer of patients between rural hospitals are not presently paid by the Department of Health. However, in cases where emergency transfer by ambulance is necessitated by implementation of the model, hospitals should not be expected to absorb these costs. The Department may also have to take additional steps to ensure that adequate ambulance services are available. Once again, costs will vary among groups, depending on utilization patterns and the level of local ambulance services.

5.7.4 Capital Costs

Actual costs will vary depending on the extent of renovations required at specific sites. Capital investment to maintain rural facilities will be required independent of the implementation of the model. To the extent that

new services and equipment are made available, particularly within the central hospital, add-on costs will be incurred within the model. Each application for enhanced equipment and services will have to be considered on its own merits relative to the demand within the group area.

It should be noted again that the potential for improved services, equipment and facilities should be a substantial inducement to physicians to participate in group affiliations.

5.7.5 Potential Cost Savings

Several elements of the model may lead to cost savings, such as the reduction of funding at the acute care level for non-acute care services. Rationalizaton of services and equipment and sharing of administrative and support services may also yield cost savings.

Quantification of the cost factors noted above could be accomplished with the identification of a per-unit cost. For example, it could be determined what the cost would be to upgrade and maintain the skills of one R.N. to provide emergency nursing care. Given the sensitivity of costs to the circumstances of

the participating facilities, however, careful costing of experiences during implementation might yield the most useful information.

5.8 Implementation

The model must be requested by the participating agencies, not imposed on them. Consequently, the model will be outlined to rural physicians and hospitals and an invitation will be extended to them to establish a grouping and apply to work with the Department of Health on implementing local projects.

Before development of individual projects proceeds, some additional refinement of the model will be required as noted previously (e.g. elaboration of the nature of the new role of non-central hospitals, identification of training and education requirements, definition of the nature and extent of participation of other agencies, and revision of regulations and guidelines concerning physician residence requirements).

Evaluation methods and criteria should also be determined prior to implementation of specific proposals for group arrangements.

5.8.1 Role of Local Groups

As has been stated, the proposed model must be both voluntary and flexible. For this reason, the role of local groups and organizations will be critical.

A group of neighbouring physicians, hospitals and communities must first recognize the mutual benefits attainable through a new organization of health services. Only then can they effectively negotiate details of reorganization, including the rationalization of services among the hospitals, provision of visiting physician services, granting of privileges at all group facilities to all physicians in the group area, and provision of emergency care through non-central hospitals.

The local participants will also have to participate extensively in promoting the benefits of the reorganization to their communities. Locally sponsored public meetings should be held during each phase of development. These meetings would inform the public of what is happening and would elicit comments and recommendations. Meetings should be organized when the concept is being introduced to the community, during the

planning stage, once a detailed implementation strategy has been developed, when the model goes into operation, and six months to a year after implementation of the affiliated practice.

5.8.2 Role of Saskatchewan Health

In order for the model to be implemented effectively, Saskatchewan Health will need to play a very active role in encouraging and facilitating reorganization of rural medical services. The Department should make all rural facilities and communities aware of its willingness to facilitate affiliations.

The Department should offer to work with the groups to assist in the development of the model and to remove constraints on its development wherever possible. It is anticipated that local groups will seek assistance concerning items such as the following:

- costs associated with emergency transportation of patients to and from the central hospital,
- costs associated with staff upgrading and continuing education,

. costs of renovation of facilities to accommodate changes in the services they provide,

. consideration of upgrading equipment and services available at the central hospital,

. provision of regular visiting support services,

. amendment of MCIC policy concerning payment for convalescent care to allow patients to receive that care in non-central hospitals,

. assurance of access to adequate continuing medical and nursing education,

. revision of funding and staffing to reflect the changing classification of beds among the facilities and the rationalization of services, and

. potential coordination of all local health services through the hospitals in a group.

If the hospitals in a group other than the central hospital are to provide a true coordinating role for the provision of local health services, the Department of Health will be required to assist in establishing the necessary cooperation and coordination, not only between branches within the Department (including the Psychiatric Services Branch,

the Community Health Services Branch, and the Continuing Care Branch) but also between various government departments. In this way it may be possible to bring these hospitals, with their respite beds and special-care beds, into integrated roles with enriched housing units and other community-based programs.

5.8.3 Public Education

Changes in the distribution of physicians in rural Saskatchewan have aroused public concern. Consequently, it is important that these public concerns be addressed and that the public have some influence over the changes being proposed.

The greatest concern will be that without a resident physician the quality of health care in a community will decline. People must be assured that rather than decline, health care is likely to improve. The following points can be presented to support this assertion:

. in an affiliated or group practice, there will be back-up support for each physician,
. physicians will have better practice conditions and therefore may stay longer in the community,

. a lower turnover rate of physicians will mean fewer instances of no physician coverage, and
. supplementary support services related to the initiation of an affiliated practice will improve the provision of health care services.

An important rule to remember when developing public education programs is that the public is, in essence, made up of a number of interest groups. Public education must therefore identify and provide information to meet the needs of these specific groups. Some of the major groups would be as follows:

. health care consumers,
. health agency administrators/boards,
. allied professionals (e.g. nurses, lab technicians),
. municipal councils/community groups/local businesses, and
. local physicians.

An affiliated medical practice is but one element of the health care system. People need to have a broader perspective on how an affiliated practice fits into the total system. Public education should be undertaken to inform people of the role of regional and base hospitals as they relate to affiliated

practices. The place of the affiliated practice in relation to community health services, home care, special-care homes, mental health services, and services for the disabled should also be integrated into a comprehensive public education campaign.

The implementation of an affiliated practice will require some reallocation of health care resources. For example, the physician may not be the first point of contact for some health care concerns and other health care professionals may assume a more visible role. Programs should be undertaken to heighten public awareness of the positive role and professional expertise of allied health professionals.

Publicity will be an important tool used to inform the public. Advertising and press releases could be used, involving all media. Officials should be available to address such bodies as municipal councils, service organizations, churches, and schools. Publicity should be an ongoing concern starting with the initial request for an affiliated practice through to its operational stage.

An advisory group should also be struck. The group could be drawn from an existing organization or board or it could be a newly created entity. The

advisory group should exist throughout the implementation of the model and may very well serve a useful purpose after it has been established.

5.9 Summary

Reorganization of rural hospital and medical services as proposed above will be a primary element of any program directed at resolving current physician recruitment and retention difficulties. It offers considerable potential both to maintain and to improve the quality of health care available to rural residents. It will retain the small community hospital as a vital economic partner in the community and as a viable means of addressing local health care needs.

However, while the district model can be a substantial solution for those communities most severely affected by current recruitment difficulties, the Committee recognizes that it is not a total solution. Some situations will not lend themselves to the proposal as readily as others, and some facilities will find it easier than others to become part of a group arrangement.

The proposed model is not the invention of this Committee. Similar approaches were suggested at the Committee's regional meetings and in numerous briefs, including those from the Saskatchewan Registered Nurses' Association, the Saskatchewan Union of Nurses, the Saskatchewan Association of Health Services Executives, and the Saskatchewan Chapter of the College of Family Physicians of Canada.

Limited affiliations have evolved naturally in several areas in direct response to problems under review here. These cooperative ventures have developed despite various impediments to this approach, and they are evidence of the validity of the proposed model of rural medical and hospital services.

CHAPTER 5: ADDENDUM

The Committee wishes to emphasize that the following outline is intended only to provide an illustration of what a typical group arrangement might look like. It is not intended in any way to restrict local arrangements for application of the proposed model.

The communities and catchment area served by the hospitals in the group arrangement described would have, or be able to support, three physicians.

Central Hospital

The central hospital would incorporate, or provide support for, the following services:

- acute care beds for a range of purposes (paediatric, obstetric, medical, surgical, etc.) for the entire area covered by the hospital group;
- diagnostic support services (laboratory and x-ray);
- operating room/ recovery room;
- emergency services with resuscitation capacity and 24-hour on-call physician services;
- ambulatory services as appropriate.

Other Hospitals in the Group

- Community population would be about 500 - 800 residents, with a total population served of under 1,500 and with a disproportionate number of the residents in the over-65 age group.

- The typical facility would have fewer than 10 inpatients at most times, involving a mixture of extended care, respite, and selected acute care admissions.

- The hospital would be within a reasonable distance of the central hospital.

- Medical coverage would be provided, in accordance with local arrangements, by the physicians who had privileges at the hospitals in the group.

- Each non-central hospital in the group would incorporate and/or provide support for:

  - outpatient diagnostic and treatment services based on regular visiting physician service or local physician service;

  - convalescent care beds, extended care beds, respite beds, acute care beds for minor medical admissions, and holding beds for emergency cases;

  - laboratory and radiology services as required to support the above functions (i.e. certified combined technician (CCT) plus appropriate equipment);

  - an adequate outpatient facility;

  - some resuscitation capacity for adults, paediatric age groups, and newborns;

  - 24-hour nursing care;

  - local transportation capacity.

CHAPTER 6: OTHER SUPPORT MEASURES

As indicated in the previous chapter, the Committee believes strongly that a piecemeal approach to resolving the various issues related to rural medical practice will not resolve these issues effectively. However, the Committee also recognizes that its proposed model will not be of equal benefit to all communities in all cases.

The Committee has therefore concluded that additional measures are desirable to supplement and reinforce the model itself. The Committee's analysis of these support measures and its specific recommendations are presented below under six separate headings.

6.1 Recruitment

Rural communities often comment on the difficulty in recruiting a physician. Communities indicate that when they advertise they get minimal response from graduates of Canadian medical schools but a better response from foreign-trained physicians.

Little information is available on the factors that enter into the decision-making process when a physician chooses where to practise. However, an unpublished survey of graduates of the College of Medicine, University of Saskatchewan, by Dr. Michael

Spooner (1973) found that the availability of a position at an opportune time is the primary determinant of where graduates choose to locate, with the beauty of the countryside and climate being factors of lesser importance.

In the 1984 Saskatchewan Medical Association Survey of Rural Physicians, the factor that ranked highest when physicians were asked which factors led to their choice of location was "a position available at the opportune time". The other factors receiving significant rankings were office facilities, availability of a house, and community encouragement.

This information leads clearly to the conclusion that the process and timing of recruitment are very important. Some Saskatchewan communities understand this situation very well and do an excellent job of recruiting. The methods which they use should be shared with other communities.

Both Alberta and Ontario stage an annual recruitment event at which communities wishing to recruit a physician can set up a display to promote their community and can meet physicians who are looking for a practice opportunity.

Recommendations

The Committee recommends

. that the College of Physicians and Surgeons of Saskatchewan bring together the variety of recruitment experiences of rural communities and develop an information package to distribute to communities on how to recruit a physician; and

. that the Saskatchewan Health-Care Association explore the possibility of staging a physician recruitment day to bring together rural communities and physicians.

6.2 Financial Incentives

Saskatchewan Health operates a Medical Practice Establishment Grant Program. The Department will match up to $15,000 contributed by a rural community for a Canadian medical graduate to establish a first-time practice in a grant-approved location. Only nine grants have been awarded since the program began in 1979.

Recommendations

The Committee recommends

. that the Medical Practice Establishment Grant Program be terminated because it is an inappropriate and ineffective mechanism for physician recruitment; and

. that Saskatchewan Health explore other incentives as alternatives (e.g. loans from MCIC repayable through deductions from payments, bursaries to medical students repayable through service in rural areas, supplements to the payment schedule).

6.3 Locums

The Medical Profession Act 1981 states that the Council of the College of Physicians and Surgeons "may issue a locum tenens permit to a physician...to practise...for a period of not more than four months as a substitute for, deputy to or assistant to a Member".

As discussed in Chapter 4, availability of locums is raised regularly as an issue, particularly by rural physicians. In the 1984 Saskatchewan Medical Association Survey of Rural Physicians, "improved access to locums" was rated as the most desired change to rural practice conditions.

Nevertheless, the number of locum registrations has been steadily increasing in this province. From 1982 to 1984, the number of physicians who obtained a locum tenens permit increased by 80 percent. The number of physicians, clinics or facilities which received locum coverage increased from 82 in 1982 to 173 in 1984, a rise of 110 percent.

Use of locums has been increasing particularly rapidly in rural areas, where the number of practices which utilized a locum rose by 170 percent. In contrast, the number of urban practices which hired a locum increased by only 45 percent. In rural areas the use of locums has been increasing most rapidly in one-doctor communities, where the physician has the fewest options for arranging coverage by other physicians.

Details of locum services from 1982-1984 are shown in the following tables.

Table 15. Number of Physicians doing Locums, Number of Locums done, and Number of Physicians, Clinics or Facilities for which Locums were done

	1982	1983	1984	Percent Change, 1982-1984
Number of Doctors Doing Locums	69	84	124	80
Number of Locums	75	106	153	104
Number of Doctors, Clinics or Facilities Which Received Locum Coverage	82	125	173	110

Table 16. Types of Practice Utilizing Locums, 1982-1984

	1982	1983	1984	Percent Change, 1982-1984
Urban	40	39	58	45
Rural	35	67	95	170
- One doctor in community	10	23	45	350
- More than one doctor in community	25	44	50	100

Source: College of Physicians and Surgeons of Saskatchewan.

If the major recommendations of this report are accepted, the number of one-physician communities should decrease. However, although the need for locums may well decrease in one-physician communities, the demand will most likely continue to increase in total. Recent graduates often indicate a greater wish for time away from the practice for continuing education and leisure time activity.

Three options appear to be currently available for obtaining a locum:

. the list of practitioners available to do locums maintained by the Registrar's office of the College of Physicians and Surgeons;

. a national physician recruitment service; and
. personal contacts with newly qualified practitioners, semi-retired physicians, etc.

It appears from discussions with physicians that not all physicians are aware of the locum recruitment service currently provided by the College of Physicians and Surgeons. As well, one criticism of this service has been that the lists provided by the College are not kept up to date.

The current procedure of the College is to maintain two lists; one contains the names and addresses of physicians seeking a physician to act as a locum, while the second list contains the names of physicians who have indicated a willingness to take a locum position. Inquirers are sent a copy of the appropriate list and then make their own arrangements directly. Unless the physicians involved notify the College when they have made an arrangement, names are removed from the list only when a request for a locum tenens permit is made to the College.

Recommendation

The Committee recommends that the College of Physicians and Surgeons of Saskatchewan publicize its locum recruitment service more extensively.

6.4 Communications Technology

Professional isolation cannot be eradicated with any single measure, but it can be combatted in two very basic ways. One way is to bring physicians into closer physical proximity with each other. The other way is to bridge the distances between physicians with better communication.

In rural practice, there is limited opportunity for personal day-to-day contact between physicians. However, affiliated medical practices and other types of group practice allow for day-to-day contact, at least to a limited extent. Access to specialist consultation would still be a problem.

Most, if not all, physicians practising in rural settings would benefit from better communication with their urban colleagues. An affiliated medical practice or some other form of group practice may make the implementation of some forms of communications technology more feasible.

However, specific needs and practical technological solutions cannot be predetermined in any precise way. Specific needs can be determined only on a case-by-case basis.

Also, new technologies must be implemented in a planned and coordinated fashion, for several reasons: to ensure compatibility between systems; to attempt cost savings through potential bulk purchases of equipment; to avoid duplication of services; and to attempt, where possible, to share facilities and costs with other users, including non-medical users.

A number of available communications technologies are described below:

Teleconferencing

Audio teleconferencing can be defined as having three or more people linked by telephone. It is best suited to situations in which the people wanting to meet are in scattered geographic locations and where there is a limited need for visual contact. Pre-arranged audio teleconferences can be augmented with printed materials, tapes, films or slides.

Teleconferencing is often applied in the education field. Continuing medical education can and does make use of teleconferencing technology.

Recently a number of organizations involved in continuing education (including the Division of Continuing Medical Education at the University of Saskatchewan) formed the Saskatchewan Telehealth

Consortium. The Consortium may be able to provide the organizational structure to expand audio teleconferencing services into rural areas of the province.

Video conferencing can be defined as having two or more people both hearing and seeing each other. It is a powerful medium but it is also expensive. As well, it is not readily transportable and some studies question the actual benefits derived from this form of communication. The new fibre optics network established by Saskatchewan Telecommunications may lower the cost of this and other technologies.

Computerized Data Banks

A large and growing number of computerized data banks and computer communication systems is available in the marketplace. Computer data banks give access to a variety of types of information, some of which are directly related to medical needs.

Hard Data Transmission

In rural practice, the physical presence of a specialist may never be possible. There are, however, various technologies which would allow the transmission of specific data on patients from a rural hospital to a base hospital. This information would allow more indepth diagnostic consultation. EEG's,

ECG's, fluoroscopes, foetal heart monitoring and other types of information can all be transmitted over long distances. Some of this technology is already in use in Saskatchewan.

Video cameras can also be used to transmit visual information, as can slow scan technology. Slow scan technology is a less expensive video transmission in which static, as opposed to moving, pictures are transmitted.

Implementation of various types of data transmission technologies should be considered a priority. This area has the greatest potential for improving diagnostic consultation.

Recommendations

The Committee recommends that a joint committee be established to plan and coordinate the introduction of communications technologies. This committee should have representatives from a wide spectrum of agencies including the Department of Health, SaskTel, the College of Physicians and Surgeons, the Colleges of Medicine and Nursing at the University of Saskatchewan, the Saskatchewan Registered Nurses Association and other health professional organizations, the Saskatchewan Health-Care Association, Continuing Medical and Nursing Education, and others.

The Committee notes that the potential of teleconferencing does not appear to be realized because inadequate equipment is leading to frustration among users. The Committee recommends that efforts be made to upgrade the quality of teleconferencing services, and it commends the efforts of the Saskatchewan Telehealth Consortium in this regard.*

6.5 Medical Education

There is no research to suggest whether or not the exposure to rural practice included in medical education increases the likelihood of a physician later choosing to practise in a rural location. However, this exposure appears to be of benefit both to the student or medical resident and to the physician in the rural community.

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* Upgrading teleconferencing services would require additional equipment. There is a potential need for a better "meet-me-bridge" (a sophisticated telephone switchboard), the costs of which range from $50,000 to $100,000. There is also a need for "conveners" (microphone and speaker systems that allow for group participation at the rural site). To ensure accessibility, a number of these conveners would have to be located throughout the province. The conveners could be stored at and loaned through hospitals, clinics, health region offices, community colleges, etc. Each system costs approximately $1,500.

Capital costs for a "meet-me-bridge" and "conveners" could range from $80,000 to $200,000 depending upon how extensive and sophisticated the service was to be.

The proposed new framework for rural medical practice will most likely expand the number of communities which would be appropriate locations for a resident to experience a rural practice and may encourage more physicians to participate as assistant clinical professors.

In discussions with physicians experienced in rural practice, a common theme is the need for additional training. The point is often made that in order for a physician to feel comfortable in a community, the individual must have the skills which that community expects and needs. There is some research to suggest a direct relationship between the amount of training and the length of time that a physician remains in a rural community.

In early 1984, Saskatchewan Health provided additional funding to the College of Medicine for 24 months of specialty training for general practitioners from rural areas. The funds are intended to allow general practitioners to take short term training of up to six months in anaesthesia, obstetrics and gynaecology, or paediatrics.

The Committee anticipates that the framework for medical practice proposed in this report will stimulate increased requests for short-term training in certain specialty areas. Increasing the number of group practices will hasten the trend towards each physician in a group having individual areas of expertise. If a group is lacking a particular area of competence, there must be avenues by which the physicians can obtain required training.

As has been noted, continuing education is becoming increasingly important for all health professionals. Achieving an adequate level of funding has been increasingly difficult in the past few years and an exploration of alternate sources of funding is underway.

Funds could be allocated to regional hospitals to allow them to contract with Continuing Medical Education and Continuing Nursing Education to meet the continuing education needs of their own area. Such a step may assist CME and CNE in developing a diversified funding base and encourage the hospitals to provide continuing education for the physicians and nurses in their area.

Recommendations

The Committee recommends

. that a period of exposure to rural medical practice continue to be included in the training program for both undergraduate medical students and family medicine residents;

. that specific funds be allocated to regional hospitals for continuing medical and nursing education so that they can contract for programs to meet the needs in their own area; and

. that ways be explored of making continuing medical education and continuing nursing education more readily available.

CHAPTER 7: CONCLUSION

In preparing this report, the Committee was cognizant of the fact that the issues involved in rural medical practice are complex and wide-ranging. Committee members also recognized that the differing perspectives and expectations of rural communities, hospitals, and physicians, all have legitimacy but are sometimes incompatible.

The Committee believes that two fundamental points must underlie any attempt to maintain and improve medical services in Saskatchewan. First, the traditional notion of "one town - one doctor" is simply no longer viable, and there is no realistic way to maintain services on this basis. Second, and equally important, residents of rural Saskatchewan have a right to expect that they will continue to have reasonable local access to an appropriate range of medical and hospital services.

The model of affiliated medical practice proposed in this report is viewed by the Committee as providing an effective balance among three objectives:

. to make rural medical practice more attractive to Canadian-trained physicians,

- to provide an effective role for rural hospitals that will ensure their continued viability in the future as a central component of rural health care, and
- to meet, as far as possible, the expectations of rural communities with regard to local access to medical and hospital services.

The Committee recognizes that the proposed model and the recommended support measures are not a perfect or universal solution. However, it believes that unless all parties involved make a sincere effort to cooperate in implementing the model effectively, the issues affecting rural medical practice today will continue to pose serious problems for the provision of effective services to residents of rural Saskatchewan.

STATISTICAL APPENDIX

SERVICES BY TYPE OF SERVICE - TOTAL

	1979-80 (124 physicians) Rate per 100 Patients							1983-84 (120 physicians) Rate per 100 Patients						
	Sum of Practitioner Rates	Mean	Median	Standard Deviation	Minimum Value	Maximum Value	No. of Zero Entries	Sum of Practitioner Rates	Mean	Median	Standard Deviation	Minimum Value	Maximum Value	No. of Zero Entries
Complete Assessments	2,455.01	19.80	19.01	12.16	0.28	52.61	0	2,643.00	22.03	21.40	11.91	0.14	66.70	0
Initial or Partial Assessments	34,480.99	278.07	261.04	79.31	66.53	512.57	0	40,245.19	335.38	337.29	93.28	133.24	630.44	0
Hospital Care Days*	14,991.53	120.90	107.67	82.70	0.00	644.76	3	13,691.19	114.09	108.77	57.74	0.00	347.40	5
Consultations	35.23	0.28	0.00	0.62	0.00	3.81	67	26.95	0.22	0.00	0.53	0.00	3.84	69
Psychotherapy or Counselling	1,727.72	13.93	3.61	34.94	0.00	249.07	16	907.88	7.57	2.89	11.62	0.00	65.81	14
Laboratory Tests	7,347.50	59.25	37.58	62.77	0.00	317.13	1	6,654.25	55.45	33.34	61.94	0.00	328.80	1
Other Diagnostic Procedures	823.33	6.64	0.55	14.81	0.00	64.05	26	1,025.27	8.54	1.26	15.34	0.00	80.30	9
Major Surgery	174.81	1.41	1.02	1.45	0.00	9.78	2	105.55	0.88	0.55	1.12	0.00	8.07	3
Minor Surgery	1,228.07	9.90	9.07	4.88	0.98	28.95	0	1,150.32	9.59	9.17	3.86	1.19	24.73	0
Obstetrics	100.38	0.81	0.76	0.58	0.00	2.93	10	76.93	0.64	0.50	0.60	0.00	2.29	22
Anaesthesia	166.26	1.34	0.02	3.28	0.00	17.09	62	99.81	0.83	0.00	2.55	0.00	19.34	72
Major Therapeutic	27.91	0.23	0.00	0.46	0.00	2.41	64	27.11	0.23	0.05	0.55	0.00	4.11	53
Minor Therapeutic	1,701.06	13.72	7.32	18.30	0.07	95.38	0	2,204.57	18.37	10.61	20.94	0.05	100.63	0
All Other Services	7,598.75	61.28	54.95	44.11	2.17	305.55	0	6,064.37	50.54	47.58	25.77	12.81	157.05	0
Total	72,858.55	587.57	546.98	185.15	292.13	1,335.67	0	74,922.45	624.35	607.07	150.35	270.70	998.41	0

* The 1979-80 rate was not available, therefore 1979 was used.

SERVICES BY TYPE OF SERVICE - ONE PRACTITIONER COMMUNITIES (SOLO)

	1979-80 (38 physicians) Rate per 100 Patients							1983-84 (42 physicians) Rate per 100 Patients						
	Sum of Practitioner Rates	Mean	Median	Standard Deviation	Minimum Value	Maximum Value	No. of Zero Entries	Sum of Practitioner Rates	Mean	Median	Standard Deviation	Minimum Value	Maximum Value	No. o- Zero Entrie
Complete Assessments	788.97	20.76	17.45	13.09	1.46	52.61	0	962.30	22.91	21.07	13.35	0.67	66.70	0
Initial or Partial Assessments	11,826.79	311.23	290.79	70.42	198.40	458.54	0	15,510.53	369.30	379.83	77.29	133.24	515.59	0
Hospital Care Days*	5,712.59	150.33	130.69	114.85	0.95	644.76	0	5,311.08	126.45	114.67	76.03	0.00	347.40	3
Consultations	4.29	0.11	0.00	0.24	0.00	1.10	26	5.97	0.14	0.00	0.29	0.00	1.44	24
Psychotherapy or Counselling	821.74	21.62	4.78	55.83	0.00	249.07	4	341.48	8.13	2.91	11.82	0.00	56.42	6
Laboratory Tests	1,737.63	45.73	29.06	56.33	0.00	304.29	1	1,676.38	39.91	17.48	53.63	0.00	250.57	1
Other Diagnostic Procedures	189.81	5.00	0.45	12.49	0.00	53.90	9	324.93	7.74	0.91	17.08	0.00	80.30	4
Major Surgery	48.64	1.28	1.03	0.93	0.00	3.96	1	29.06	0.69	0.55	0.56	0.00	2.00	2
Minor Surgery	467.76	12.31	11.31	4.79	4.62	28.95	0	473.90	11.28	10.53	4.16	3.01	24.73	0
Obstetrics	28.23	0.74	0.68	0.56	0.00	2.93	4	19.39	0.46	0.27	0.57	0.00	2.16	11
Anaesthesia	8.66	0.23	0.00	0.67	0.00	3.64	30	4.53	0.11	0.00	0.43	0.00	2.61	35
Major Therapeutic	6.10	0.16	0.00	0.32	0.00	1.38	21	11.98	0.29	0.00	0.75	0.00	4.11	25
Minor Therapeutic	522.85	13.76	8.81	14.88	0.41	63.74	0	650.67	15.49	8.56	15.40	0.14	63.82	0
All Other Services	2,756.13	72.53	63.08	43.68	8.01	231.24	0	2,556.76	60.88	54.22	29.74	14.93	157.05	0
Total	24,920.19	655.79	610.95	176.65	376.80	1,216.89	0	27,878.96	663.78	672.82	129.84	300.17	919.39	0

* The 1979-80 rate was not available, therefore 1979 was used.

SERVICES BY TYPE OF SERVICE - TWO-THREE PRACTITIONER COMMUNITIES (SOLO)

	1979-80 (29 physicians) Rate per 100 Patients							1983-84 (33 physicians) Rate per 100 Patients						
	Sum of Practitioner Rates	Mean	Median	Standard Deviation	Minimum Value	Maximum Value	No. of Zero Entries	Sum of Practitioner Rates	Mean	Median	Standard Deviation	Minimum Value	Maximum Value	No. of Zero Entries
Complete Assessments	659.75	22.75	23.71	13.36	0.28	47.23	0	800.89	24.27	24.48	10.74	0.14	45.10	0
Initial or Partial Assessments	8,702.41	300.08	286.82	82.50	145.75	495.57	0	12,414.10	376.18	381.11	95.56	228.36	630.44	0
Hospital Care Days*	3,220.21	111.04	88.24	82.13	0.00	385.21	3	3,577.05	108.40	101.98	52.81	0.00	227.61	2
Consultations	13.17	0.45	0.06	0.76	0.00	3.29	13	6.02	0.18	0.00	0.32	0.00	1.23	17
Psychotherapy or Counselling	678.98	23.41	15.53	28.06	0.00	115.82	3	433.82	13.15	8.27	15.31	0.00	65.81	1
Laboratory Tests	1,864.19	64.28	33.15	80.57	1.71	317.13	0	2,199.98	66.67	31.76	78.39	0.92	328.80	0
Other Diagnostic Procedures	154.39	5.32	0.43	13.69	0.00	63.40	7	273.80	8.30	1.14	15.56	0.00	66.50	3
Major Surgery	45.49	1.57	1.19	1.32	0.08	5.12	0	29.80	0.90	0.55	1.04	0.07	5.10	0
Minor Surgery	312.36	10.77	10.05	5.78	1.17	24.87	0	317.31	9.62	9.27	3.71	1.19	18.99	0
Obstetrics	17.93	0.62	0.59	0.55	0.00	2.21	4	20.58	0.62	0.46	0.54	0.00	1.61	6
Anaesthesia	30.35	1.05	0.00	3.17	0.00	16.50	18	11.06	0.34	0.00	0.80	0.00	3.30	23
Major Therapeutic	15.11	0.52	0.14	0.75	0.00	2.41	12	6.81	0.21	0.10	0.29	0.00	1.03	10
Minor Therapeutic	382.07	12.49	4.10	21.66	0.21	90.53	0	797.43	24.16	15.60	24.16	2.44	100.63	0
All Other Services	2,273.62	78.40	65.14	59.41	3.23	305.55	0	1,779.63	53.93	51.69	24.42	18.67	114.13	0
Total	18,350.03	632.76	585.40	224.18	304.03	1,335.67	0	22,668.31	686.92	656.11	161.76	409.75	998.41	0

* The 1979-80 rate was not available, therefore 1979 was used.

SERVICES BY TYPE OF SERVICE - TWO-THREE PRACTITIONER COMMUNITIES (ASSOCIATION)

	1979-80 (57 physicians) Rate per 100 Patients							1983-84 (45 physicians) Rate per 100 Patients						
	Sum of Practitioner Rates	Mean	Median	Standard Deviation	Minimum Value	Maximum Value	No. of Zero Entries	Sum of Practitioner Rates	Mean	Median	Standard Deviation	Minimum Value	Maximum Value	No. of Zero Entries
Complete Assessments	1,006.29	17.65	18.34	10.60	0.37	44.13	0	879.81	19.55	20.60	11.08	0.50	59.03	0
Initial or Partial Assessments for or Follow-up Assessments	13,951.79	244.77	235.26	69.89	66.53	512.57	0	12,320.56	273.79	272.15	71.41	161.82	454.20	0
Hospital Care Days*	6,058.73	106.29	96.80	45.59	34.08	214.13	0	4,803.06	106.73	108.85	37.08	24.08	199.00	0
Consultations	17.77	0.31	0.04	0.69	0.00	3.81	28	14.96	0.33	0.00	0.77	0.00	3.84	26
Psychotherapy or Counselling	227.00	3.98	1.52	6.38	0.00	30.38	9	132.58	2.95	1.79	4.31	0.00	22.35	7
Laboratory Tests	3,745.68	65.71	51.74	55.97	1.25	221.97	0	2,777.89	61.73	51.15	53.51	1.08	207.59	0
Other Diagnostic Procedures	479.13	8.41	0.75	16.70	0.00	64.05	10	426.54	9.48	1.85	13.67	0.00	58.44	2
Major Surgery	80.68	1.42	0.81	1.78	0.00	9.78	1	46.69	1.04	0.55	1.51	0.00	8.07	1
Minor Surgery	447.95	7.86	7.62	3.46	0.98	17.67	0	359.11	7.98	8.10	2.94	1.31	14.08	0
Obstetrics	54.22	0.95	0.90	0.58	0.00	2.85	2	36.96	0.82	0.71	0.62	0.00	2.29	5
Anaesthesia	127.25	2.23	0.47	4.08	0.00	17.09	14	84.22	1.87	0.33	3.89	0.00	19.34	14
Major Therapeutic	6.70	0.12	0.00	0.23	0.00	1.30	31	8.32	0.18	0.05	0.47	0.00	2.98	18
Minor Therapeutic	816.14	14.32	8.16	18.79	0.07	95.38	0	756.47	16.81	9.61	22.47	0.05	95.54	0
All Other Services	2,569.00	45.07	41.18	27.28	2.17	123.86	0	1,727.98	38.40	40.34	16.64	12.81	74.10	0
Total	29,588.33	519.09	490.83	143.39	292.13	1,044.50	0	24,375.18	541.67	538.79	122.41	270.69	913.66	0

* The 1979-80 rate was not available, therefore 1979 was used.